

WHAT IS CLAIMED IS:

1. A method for removing an organic compound layer from a lower layer, comprising the steps of:
 - a) carrying out a preliminary treatment on said organic compound layer so as to deform said organic compound layer or change quality of the organic compound; and
 - b) peeling said organic compound layer from said lower layer.
2. The method as set forth in claim 1, in which said step a) includes the sub-steps of
 - a-1) producing a chemical vapor effective to said organic compound, and
 - a-2) exposing said organic compound layer to said vapor.
3. The method as set forth in claim 2, in which a chemical solution is vaporized in said sub-step a-1).
4. The method as set forth in claim 2, in which said chemical vapor makes said organic compound layer have fluidity so as to reduce the thickness of said organic compound layer through a reflow.
5. The method as set forth in claim 4, in which said chemical vapor is produced of an organic solvent selected from the group consisting of alcohols expressed by general formula R-OH, alkoxyalcohols, ethers expressed by general formula R-O-R, Ar-O-R and Ar-O-Ar, esters, ketones, glycols, alkylene glycols and glycol ethers where R is an alkyl group or a substituted alkyl group and Ar is phenyl group or aromatic ring except said phenyl group.

6. The method as set forth in claim 5, in which at least two of said organic solvents are blended so that said chemical vapor is produced from the blended organic solvent.
7. The method as set forth in claim 4, in which said reflow is carried out at 15 degrees to 40 degrees in centigrade.
8. The method as set forth in claim 4, in which said organic compound layer serves as a photo-resist mask.
9. The method as set forth in claim 8, in which said organic compound layer is reduced in thickness to a third or less through said reflow.
10. The method as set forth in claim 8, in which said photo-resist mask is stripped off by using a dry cleaning in said step b).
11. The method as set forth in claim 1, in which said step a) includes the sub-steps of
 - a-1) heating said organic compound layer to a predetermined temperature range, and
 - a-2) keeping said organic compound layer in a high-temperature ambience so that said organic compound layer is reduced in thickness through a reflow.
12. The method as set forth in claim 11, in which said predetermined temperature range is between 50 degrees in centigrade and 300 degrees in centigrade.
13. The method as set forth in claim 1, in which said step a) includes the sub-steps of
 - a-1) producing a chemical vapor effective to said organic compound,

a-2) exposing said organic compound layer to said vapor,

a-3) heating said organic compound layer to a predetermined temperature range, and

a-4) keeping said organic compound layer in a high-temperature ambience.

14. The method as set forth in claim 13, in which said predetermined temperature range is between 50 degrees and 300 degrees in centigrade.

15. The method as set forth in claim 2, in which said step a) includes the sub-steps of

a-1) producing a chemical vapor effective to said organic compound,

a-2) exposing said organic compound layer to said vapor, and

a-3) heating said organic compound layer to a predetermined temperature for a predetermined time period so as to vaporize condensate of said chemical vapor from a surface of said lower layer.

16. The method as set forth in claim 14, in which said predetermined temperature and said predetermined time period are between 100 degrees in centigrade and 180 degrees in centigrade and between 10 minutes and 300 minutes.